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EXAMINER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/783,437	Applicant(s) KUBLER ET AL.	
	Examiner HOANG-CHUONG Q. VU	Art Unit 2476	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-40 and 42-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-40, 42-66, 68 and 69 is/are rejected.
- 7) ☒ Claim(s) 67 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims: Claims 22-40, 42-69 are currently pending.

Examiner's Note: Claims 60-69 recite a machine-readable storage which may refer to a memory element/terminal/device; however, it's not be claimed as a storage terminal/device; and to be consistent with the *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101, Aug. 24, 2009; p. 2*, it is suggested the limitation "non-transitory" to be added to claims 60-69 to recite "A non-transitory computer-readable storage". Such an amendment would not raise the issue of new matter. The limited situations in which such an amendment could raise issues of new matter occur, for example, when the specification does not support a non-transitory embodiment because a signal per se is the only viable embodiment such that the amended claim is impermissibly broadened beyond the supporting disclosure. See, e.g., *Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998). For this case, the storage may be a terminal/device as defined in the Specification.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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2. **Claims 22, 23, 27-29, 31-32, 34, 36, 45-49, 52-55, 57-61, 64-66, and 68-69** are rejected under 35 U.S.C. 102(e) as being anticipated by Ziv et al. (7,778,642).

Regarding claim 22, Ziv et al. disclose a communication system controller comprising: interface circuitry for communicating, with an information transmission device, information requesting setup of a call (**col. 8 lines 26-27; CCP signals the system 101 during call set up requested by a subscriber to initiate a telephone call**) and parameters for configuring the information transmission device, wherein the parameters for configuring the information transmission device comprise information specifically related to the conversion, by the information transmission device, of digitized voice information into an analog voice signal, and of an analog voice signal into digitized voice information (**col. 7 lines 54-63; CCP configures service options element 210 after the determination of the type of the system and its processing capabilities (col. 6 lines 47-65); the element 210 is configured for conversion between vocoded data and tone (col. 5 lines 56-59)**); at least one processor operably coupled to the interface circuitry (**col. 7 lines 32-34; CCP is comprised of circuitry and a microprocessor for executing instructions**); and operational software executable by the at least one processor, the operational software causing the at least one processor to produce the parameters for configuring the information transmission device based upon the information requesting setup of a call (**col. 6 lines 59-63; CCP generates information during the call set up to indicate to the system of the type the system is and its processing capabilities**) (**col. 7 lines 54-63; CCP configures service options element 210 after the determination of the type of the system and its**

processing capabilities (col. 6 lines 47-65)), the information transmission device thereby communicatively coupling one of a plurality of communication networks to another of the plurality of communication networks **(see Fig. 2).**

Regarding claims 23, 48, and 61, Ziv et al. further teach wherein the plurality of communication networks comprises a packet network **(fig. 2 and abstract line 15; ATM is a packet network).**

Regarding claims 27, 52, and 65, Ziv et al. further teach wherein the plurality of communication networks comprises a conventional telephone switching network **(fig. 2).**

Regarding claims 28, 53, and 66, Ziv et al. further teach wherein the conventional telephone switching network communicates using analog signals **(col. 5 lines 57-58).**

Regarding claim 29, Ziv et al. further teach a packet network interface for communicating using a packet protocol **(fig. 2, ATM is a packet protocol).**

Regarding claims 31 and 49, Ziv et al. further disclose packets communicated comprise digitized voice information **(col. 1 lines 29-30; digital signal for telephone call).**

Regarding claim 32, Ziv et al. further disclose wherein the packets communicated via the packet network interface comprise non-voice data **(col. 3 lines 4-8; conversion to tones is omitted via connection in ATM packet network).**

Regarding claim 34, Ziv et al. further disclose wherein the operational software is capable of determining a routing for the requested call **(col. 4 lines 53-57).**

Regarding claim 36, Ziv et al. further disclose wherein the routing is based upon predefined call routing information (**col. 4 lines 29-34; call is directed based on telephone number in the call request**).

Regarding claim 45, Ziv et al. further teach wherein the interface circuitry is capable of communicating digitized voice information with the information transmission device (**see col. 7 lines 37-46; CCP communicates vocoded data with service options element 210**).

Regarding claim 46, Ziv et al. further teach wherein the communication system controller and the information transmission device are located within the same housing (**fig. 2; 210 is located within the same housing of the controller**).

Regarding claim 47, Ziv et al. disclose a communication system controller comprising: interface circuitry arranged to deliver configuration information to a system (**col. 8 lines 26-27; CCP signals the system 101 during call set up requested by a subscriber to initiate a telephone call**) for communicatively coupling of one of a plurality of communication networks to another of the plurality of communication networks based upon the configuration information (**see Fig. 2**); wherein the configuration information comprise information specifically related to the conversion, by the system, of digitized voice information into an analog voice signal, and an analog voice signal into digitized voice information (**col. 7 lines 54-63; CCP configures service options element 210 after the determination of the type of the system and its processing capabilities (col. 6 lines 47-65); the element 210 is configured for conversion between vocoded data and tone (col. 5 lines 56-59)**); storage capable of

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containing operational software and call routing information (**col. 1 lines 57-60**); and at least one processor operably coupled to the interface circuitry (**col. 7 lines 32-34; CCP is comprised of circuitry and a microprocessor for executing instructions**), the at least one processor capable of accessing the operational software and call routing information (**col. 1 lines 57-60**), the operational software functioning at least to cause the at least one processor to produce the configuration information based upon call setup information and the call routing information (**col. 6 lines 59-63; CCP generates information during the call set up to indicate to the system of the type the system is and its processing capabilities**) (**col. 7 lines 54-63; CCP configures service options element 210 after the determination of the type of the system and its processing capabilities (col. 6 lines 47-65)**).

Regarding claim 54, Ziv et al. further teach wherein the call setup information is received via one of the plurality of communication networks (**see fig. 2; call set up is requested via PSTN, ATM or wireless network**).

Regarding claim 55, Ziv et al. further teach a network interface adapted to communicate using a wired network (**fig. 2, PSTN**).

Regarding claim 57, Ziv et al. further teach wherein the call setup information is received via the wired network (**see fig. 2; call set up is requested via PSTN**).

Regarding claim 58, Ziv et al. further teach wherein the call setup information comprises a destination address (**col. 4 lines 29-34; call is directed based on telephone number in the call request**).

Regarding claim 59, Ziv et al. further teach wherein the call routing information comprises at least one association of a destination address and a call route (**col. 4 lines 30-34; call is routed using the telephone number and type of subscriber to be directed to**).

Regarding claim 60, Ziv et al. disclose a machine-readable storage having stored thereon a computer program having a plurality of code sections for implementing a communication system controller for controlling an information transmission device for communicatively coupling one of a plurality of communication networks to a second of the plurality of communication networks (**see Fig. 2**), the code sections executable by a machine for causing the machine to perform the operations comprising: storing routing information received from a user at a first location (**see Fig. 2**); accepting a call setup request via the one of the plurality of communication networks (**col. 8 lines 26-27; CCP signals the system 101 during call set up requested by a subscriber to initiate a telephone call**) (**see fig. 2; call set up is requested via PSTN, ATM or wireless network**), the call setup request comprising a destination address corresponding to a second location (**col. 4 lines 29-34; call is directed based on telephone number in the call request**); determining a call route between the first location and second location based upon the call setup request and the stored routing information (**col. 4 lines 30-34; call is routed using the telephone number and type of subscriber to be directed to**); generating configuration information using at least one of the call setup request and the stored routing information (**col. 6 lines 59-63; CCP generates information during the call set up to indicate to the system of the type the system**

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is and its processing capabilities) (col. 7 lines 54-63; CCP configures service options element 210 after the determination of the type of the system and its processing capabilities (col. 6 lines 47-65); wherein the configuration information comprise information specifically related to the conversion, by the information transmission device, of digitized voice information into an analog voice signal, and an analog voice signal into digitized voice information **(col. 7 lines 54-63; CCP configures service options element 210 after the determination of the type of the system and its processing capabilities (col. 6 lines 47-65); the element 210 is configured for conversion between vocoded data and tone (col. 5 lines 56-59));** and providing the configuration information to the information transmission device to cause communicative coupling of the one of a plurality of communication networks to the second location via another of the plurality of communication networks in order to establish the requested call **(col. 7 lines 54-63; CCP configures service options element 210 after the determination of the type of the system and its processing capabilities (col. 6 lines 47-65)) (fig. 2; establishing the call between plurality of networks).**

Regarding claim 64, Ziv et al. further teach wherein the packet network comprises a wireless network **(col. 7 lines 15-22; data is directed to BTS for wireless unit 100 by placing appropriate address with packets in which data is transmitted).**

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Regarding claims 68 and 69, Ziv et al. further teach sending to the second location a call setup request and receiving from the second location acceptance of a call setup request (**see col. 9 lines 20-21, 46-47**).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. **Claims 24-26, 50-51, and 62-63** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv et al. (7,778,642) view of Lev et al. (5,729,544).

Regarding claims 24-25, 50-51, and 62-63, Ziv et al. disclose all the subject matter of the claimed invention as recited in claims 23 and 48 above respectively without explicitly teach wherein the packet network communicates using an Internet protocol (IP) which comprises transmission control protocol (TCP)/Internet protocol (IP). However, Lev et al. from the same or similar field of endeavor teach wherein the packet network communicates using an Internet protocol (IP) which comprises transmission

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control protocol (TCP)/Internet protocol (IP) (**see col. 4 lines 20-21**). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ TCP/IP protocol for such a packet network as taught by Lev et al. in the teaching of Iwami et al. to provide an alternative protocol for carry data packets in a network. The motivation or suggestion would have been to extend the use of protocols in the context of the type of application transmission.

Regarding claim 26, Ziv et al. further teach wherein the packet network comprises a wireless network (**col. 7 lines 15-22; data is directed to BTS for wireless unit 100 by placing appropriate address with packets in which data is transmitted**).

6. **Claims 30, 44, and 56** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv et al. (7,778,642) view of Henley et al. (5,526,353).

Regarding claims 30 and 56, Ziv et al. disclose all the subject matter of the claimed invention as recited in claims 29 and 55 above respectively without explicitly teach wherein the packet protocol is compliant with an Ethernet protocol. However, Henley et al. from the same or similar field of endeavor teach using a system and method for communication of audio data over a packet-based network. Henley et al. recite a preferred embodiment directed to Ethernet environment where each node in the computer network is designated by a specific address (column 6, lines 15-21). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teaching of Ziv et al. to make the protocol compliant with an Ethernet protocol. One is motivated as such to enable each packet

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assembly circuit the ability to determine the routing of the audio data through the network with a packet-based transmission protocol (column 6, lines 27-31).

Regarding claim 44, Ziv et al. disclose all the subject matter of the claimed invention as recited in claim 22 above without explicitly teach reducing the quantity of digitized voice information communicated via the information transmission device, by changing the packetization of digitized voice information when voice activity on one of the plurality of communication networks falls below a predetermined level. However, Henley et al from the same or similar field of endeavor teach a system and method for communication of audio data over a packet-based network. It is disclosed the system further comprises a decimation circuit for deleting audio data from a designated location of the buffer to shorten the portions of the stream of audio data in the buffer. The circuit addresses the problem when data are read from the buffer slower than they are written to the buffer (**column 5, lines 65-67 and column 6, lines 1-5**). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teaching of Iwami et al. to reduce the quantity of digitized voice information communicated via the information transmission device by changing the packetization of digitized voice when voice activity on one of the plurality of communication networks falls below a predetermined level. One is motivated as such to ensure the buffer stays close to its predetermined length for efficient realignment of the audio data in the buffer (column 6, lines 11-14).

7. **Claims 33, 37-40, and 43** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv et al. (7,778,642) view of Iwami et al. (5,604,737).

Regarding claim 33, Ziv et al. disclose all the subject matter of the claimed invention as recited in claim 29 above without explicitly teach wherein at least a portion of the non-voice data is unrelated to the communication of digitized voice information. However, Iwami et al. further teach wherein the packets communicated via the packet network interface comprise non-voice data; wherein at least a portion of the non-voice data is unrelated to the communication of digitized voice information (**col. 2 lines 4-6**). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Iwami et al. to utilize the packet communication network to exchange data unrelated to the digitized voice information. One of ordinary skill would have motivated to do so to expand the types of data that can be transmitted in a network in providing more services to subscribers.

Regarding claims 37 and 38, Iwami et al. further teach wherein the information requesting setup of a call comprises information related to telephony signals received by the information transmission device; wherein the telephony signals received comprise at least one of dual tone multi-frequency (DTMF) signals, dial tone, a ring signal, on-hook, off hook, and call progress tones (**col. 13 lines 31-41**). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teaching of Iwami et al. to provide a signal indicating a request for setting up a telephone call. One of ordinary skill in the art would have motivated to notify the system about the reception of a call request in order for the system to respond to such request.

Regarding claims 39 and 40, Iwami et al. further teach wherein the parameters for configuring the information transmission device comprise information related to telephony signals generated by the information transmission device (**col. 13 lines 37-38**); wherein the telephony signals generated by the information transmission device comprise at least one of dual tone multi-frequency (DTMF) signals, dial tone, a busy signal, and a ringing signal (**col. 15 lines 11-22**). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Iwami to provide information related DTMF signal, dial tone, ringing signal as parameter for configuring the device as taught by Ziv et al. The motivation would have been to use the information for provisioning in setting up the call.

Regarding claim 43, Iwami et al. further teach wherein the parameters for configuring the information transmission device comprise information related to at least one of a battery supply, over-voltage protection, ringing current, tone generation, tone detection, two wire to four wire conversion, and test functionality (**see col. 15 lines 14-16**). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize information related to tone generation for configuring the device taught by Ziv et al. One of ordinary skill in the art would have motivated to do so to employ the information in configuring the device to provision communication services between subscribers. The motivation would have been to provide an efficient system.

8. **Claim 35** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv et al. (7,778,642) view of Barak (5,764,741).

Regarding claim 35, Ziv et al. disclose all the subject matter of the claimed invention as recited in claim 34 above without explicitly teach wherein the routing is determined based upon a cost of use of a communication network. However, Barak from the same or similar field of endeavor teaches wherein the routing is determined based upon a cost of use of a communication network (**see Abstract lines 2-8; determining routing based on the cost information in the routing database**). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use routing cost in a routing database taught by Barak to determine which providers or networks to execute the call. One of ordinary skill in the art would have motivated to do so to select a least cost route for a call.

9. **Claim 42** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv et al. (7,778,642) in view of Sharman (5,774,854).

Regarding claim 42, Ziv et al. disclose all the subject matter of the claimed invention as recited in claim 22 above without explicitly suggest the parameters for configuring the information transmission device comprise information related to the buffering of digitized voice information for a predefined period of time to minimize gaps in an analog voice signal. However, Sharman from the same or similar field of endeavor teaches a text to speech system operating in real using an acoustic processor and a linguistic processor. Due to the computational time the linguistic processor requires to process data, future requests from the acoustic processor cannot be made. Thus gaps in the speech output often occur when the acoustic processor requests data from the linguistic processor. Sharman proposes a solution to overcome the gaps in data by

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adjusting the buffer for minimal of output data so that future requests can be supplied in a timely manner (**column 7, lines 39-48**). Hence the propagation delay caused by the linguistic processor is a factor affecting the adjustment in the buffer for desired optimal output. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to modify the teaching of Ziv et al. to have the parameters configuring information related to the buffering of digitized voice information for a predefined period of time in order to minimize gaps in the analog voice signal as taught by Sharman. One is motivated as such to accurately halt the system based on the output in the event that an interruption occurs (abstract, column 2, lines 34-39).

Allowable Subject Matter

10. Claim 67 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Remarks/Arguments

11. Applicant's remarks/arguments, see pages 15-22, filed 10/07/2010, with respect to the rejection(s) of claim(s) 22, 47, and 60 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOANG-CHUONG Q. VU whose telephone number is

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(571) 270-3945. The examiner can normally be reached on Monday through Thursday 8:30 AM to 6:00 PM EST. and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AYAZ R. SHEIKH can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. V./
Examiner, Art Unit 2476

/Ayaz R. Sheikh/
Supervisory Patent Examiner, Art
Unit 2476